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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,987	11/30/2001	Paul L. Master	QuickSilver Technology,	4284
7590 10/19/2004			EXAMINER	
Nancy R. Gamburd DYKEMA GOSSETT PLLC 55 EAST MONROE STREET SUITE 3050 CHICAGO, IL 60603			TREAT, WILLIAM M	
			ART UNIT	PAPER NUMBER
			2183	
			DATE MAILED: 10/19/2004 5	

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/997,987

**Applicant(s)**

MASTER ET AL.

**Examiner**

William M. Treat

**Art Unit**

2183

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-105 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-105 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/1/2002</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

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1. Claims 1-105 are presented for examination.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-7, 12-15, 19-21, 23-28, 31-34, 38, 40-47, 52-54, 58-60, 62-69, 74-75, 79, 83-84, 86-93, 95, and 97-105 are rejected under 35 U.S.C. 102(b) as being anticipated by Kopp et al. (Patent No. 5,450,557).
4. Kopp taught the invention of exemplary claim 1 including a system for configuring and operating an adaptive circuit comprising a first executable information module having first configuration information, second configuration information, first operand data, and second operand data (col. 2, lines 3-18); a plurality of heterogeneous computational elements with at least two computational elements with fixed architectures different from each other (col. 2, line 58 through col. 3, line 3); and an interconnection network coupled to the plurality of heterogeneous capable of providing the first operand data to the plurality of heterogeneous computational elements for a first functional mode of a plurality of functional modes in response to the first configuration information, and the interconnection network further capable of reconfiguring and providing the second operand data to the plurality of heterogeneous computational elements for a second, different, functional mode in response to the second configuration information (col.3, lines 4-68).
5. As to claims 2 and 3, Kopp taught appropriate first and second executable information modules to provide first and second operating modes (col. 3, lines 45-68).

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6. As to claims 4-6, Kopp taught the first and second configuration information stored in a memory coupled to the computational elements and the interconnection network with the stored configuration information representing a configuration of the computational elements and the configuration information also stored in registers/latches representing computational elements (col. 3, lines 45-68).

7. As to claim 7 Kopp taught the executable information stored in a machine-readable medium (col. 3, lines 56-68).

8. As to claims 12-13, Kopp taught appropriate specific architectures and functional modes (col. 4, line 1 through col. 6, line 40).

9. As to claims 14-15, Kopp taught an appropriate controller consisting of heterogeneous, configurable computational elements (col. 4, lines 1-26).

10. As to claim 19, Kopp taught generating an appropriate request for an appropriate second executable information module (col. 3, lines 45-68).

11. As to claim 20, Kopp taught an appropriate integrated circuit (160).

12. As to claim 21, Kopp taught appropriate routing (col. 3, lines 4-68).

13. As to claim 23, Kopp taught appropriate iteration control (col. 2, lines 66-68).

14. As to claim 24, Kopp taught reference to previously stored configuration sequences (col. 2, lines 3-18).

15. As to claim 25, Kott taught it was possible to operate computational elements in one mode while reconfiguring other computational elements for a second functional mode (col. 3, lines 27-40).

16. As to claims 26 and 28, they fail to teach or define over rejected claims 1-7, 12-15, 19-

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21, and 23-25.

17. As to claim 27, Kopp inherently taught delaying the data until after the configuration was established or his system would not function.

18. As to claims 31-34, 38, 40-47, 52-54, 58-60, 62-69, 74-75, 79, 83-84, 86-93, 95, and 97-105 they fail to teach or define over rejected claims 1-7, 12-15, 19-21, and 23-28.

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

21. Claims 8-11, 16-18, 22, 29-30, 35-37, 39, 48-51, 55-57, 61, 70-73, 76-78, 80-82, 85, 94, and 96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kopp et al. (Patent No. 5,450,557).

22. Kopp taught the invention of the various independent claims from which the above claims depend (see the preceding paragraphs).

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23. As to claims 8-11, 35-36, 48-51, and 70-73, the examiner takes Official Notice that these are merely conventional means in the communications area for transmitting data and conventional methods of formatting data for transmission over the transmission means. Kopp taught his system performed high-speed computations and repetitive high-speed computations well (col. 1, lines 19-27). This is the same type of computation appropriate to communications. Kopp would have been motivated to provide these conventional transmission and data formatting modes with his system to broaden his market appeal beyond imaging for missile systems.

24. As to claims 16-18, 55-57, 76-78, and 80-82, the examiner takes Official notice that these are merely conventional communications tasks for high-speed processors such as Kopp's invention. One of ordinary skill in the art would be motivated to use Kopp's system because it performs high-speed computations and repetitive high-speed computations well (col. 1, lines 19-27) as is required in the processing environments cited.

25. As to claims 22, 30, 37, 61, 85, and 96, the examiner takes Official Notice that these are merely claims for providing conventional power control for the system which is commonplace in communications hardware. Kopp would have been motivated to provide such circuitry in a communications system environment since not all his circuitry would be operating in a given configuration and controlling the power to the idle circuitry would save power.

26. As to claims 29 and 94, the examiner takes Official Notice of the fact that self-configuring networks in which the configuration data is inserted ahead of the other data and thereby configures the network for delivery of the following data is an old and well-known technique. The examiner is uncertain as to how applicant's claim language would allow applicant's to distinguish over such a well-known method when used by Kopp to configure his

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connection network.

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

28. Holtzman et al. (Patent No. 6,760,587) and Walton et al. (Patent No. 6,785,341) both assigned to Qualcomm Inc. taught the substance of claims 8-11, 16-18, 22, 30, 35-37, 39, 48-51, 55-57, 61, 70-73, 76-78, 80-82, 85, and 96 is conventional in the communications art.

29. DeHon et al. (Patent No. 5,956,518).

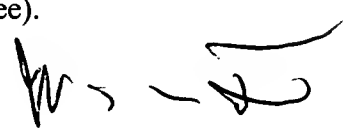
30. Harrison et al. (Patent No. 5,963,048).

31. Wasson (Patent No. 6,433,578).

32. Wong et al. (Patent No. 6,282,627).

33. Any inquiry concerning this communication should be directed to William M. Treat at telephone number 703 305 9699. After Oct. 12, 2004, the examiner's phone number should be changed to (571) 272-4175. The examiner works at home on Wednesdays but may normally be reached on Wednesdays by leaving a voice message using his office phone number. The examiner also works a flexible schedule but may normally be reached in the afternoon and evening on three of the four remaining weekdays.

34. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



WILLIAM M. TREAT  
PRIMARY EXAMINER